

LISTING OF THE CLAIMS

1. (Previously Presented) A method for maintaining a boot order of one or more mass storage devices within a computer system, the method comprising:

determining prior to attempting an initial program load of the computer system whether a configuration change to the computer system was made since a previous boot of the computer system that would affect the boot order of the mass storage devices within the computer system, wherein the configuration change comprises removal of at least one of the one or more mass storage devices from the computer system;

in response to determining that a configuration change was made that would affect the boot order, then retrieving a first list of mass storage devices within the computer system prior to the configuration change;

comparing the mass storage devices of the first list with a second list of mass storage devices within the computer after the configuration change to determine at least one mass storage device from the first list of mass storage devices that was removed from the computer system; and

rearranging the boot order of the mass storage devices within the computer system after the configuration change so that the mass storage devices are booted in the order used prior to the configuration change.

2. (Canceled)

3. (Previously Presented) The method of Claim 1, wherein the configuration change further comprises adding a mass storage device to the computer system and wherein rearranging the boot order of the mass storage devices further comprises placing an entry corresponding to the added mass storage device at the end of the boot order.

4. (Previously Presented) The method of Claim 3, further comprising in response to determining that a configuration change was made that would affect the boot order:

storing a data structure in a non volatile memory of the computer system prior to performing a boot of the computer, the data structure including a unique identifier for each mass storage device and the location of each mass storage device within the rearranged boot order.

5. (Original) The method of Claim 4, wherein rearranging the boot order of the mass storage devices comprises:

identifying a previous location in the boot order for each mass storage device in the computer system by locating a unique identifier in the previously stored data structure matching the mass storage device; and

rearranging the location in the current boot order for each mass storage device so that each device retains the same relative position in the boot order as the previous location.

6. (Original) A computer-readable medium having computer-executable instructions stored thereon, said instructions operative to provide the method of Claim 1 when executed by a computer.

7. (Original) A computer-controlled apparatus operative to perform the method of Claim 1.

8. (Previously Presented) A method for maintaining a boot order that defines the order in which a computer system attempts to perform an initial program load from one or more mass storage devices within the computer, the method comprising:

determining prior to attempting the initial program load of the computer system whether a configuration change to the computer system was made since a previous boot of the computer system that would affect the boot order of the mass storage devices within the computer system;

in response to determining that a configuration change was made that would affect the boot order, then retrieving a first list of mass storage devices within the computer system prior to the configuration change and a second list of mass storage devices within the computer system after the configuration change;

comparing the mass storage devices of the first list with the mass storage devices of the second list to determine the mass storage devices of the second list present in the first list;

associating each of the mass storage devices of the second list determined to be present in the first list with a boot priority such that the mass storage devices of the second list determined to be present in the first list are booted in the boot order used prior to the configuration change;

after associating each of the mass storage devices of the second list determined to be present in the first list with a boot priority, determining at least one mass storage device of the second list not associated with a boot priority; and

associating the at least one mass storage device of the second list with a boot priority such that the at least one mass storage device is booted at the end of the boot order.

9. (Previously Presented) The method of Claim 8, further comprising comparing the mass storage devices of the first list with the mass storage devices of the second list to determine at least one mass storage device from the first list that was removed from the computer system.

10. (Previously Presented) The method of Claim 9, further comprising rearranging the boot order of the mass storage devices within the computer system after the configuration change so that the mass storage devices are booted in the boot order used prior to the configuration change.

11. (Original) A computer-readable medium having computer-executable instructions stored thereon, said instructions operative to provide the method of Claim 8 when executed by a computer.

12. (Original) A computer-controlled apparatus operative to perform the method of Claim 8.

13. (Previously Presented) A computer system operative to attempt an initial program load from one or more mass storage devices according to a defined boot order, the computer system comprising:

a central processing unit;
the one or more mass storage devices;
a non-volatile memory storing a basic input/output system (BIOS) executable on the central processing unit, the BIOS operative:
to provide a facility for specifying the boot order,
to determine prior to attempting an initial program load of the computer system whether a configuration change to the computer system was made since a previous boot of the computer system that would affect the boot order, wherein the configuration change comprises removing at least one of the one or more mass storage devices from the computer system,
in response to determining that a configuration change was made that would affect the boot order, to retrieve a first list of mass storage devices within the computer system prior to the configuration change and a second list of mass storage devices within the computer system after the configuration change;
to compare the mass storage devices of the first list with the mass storage devices of the second list to determine at least one mass storage device from the first list of mass storage devices that was removed from the computer system; and
to rearrange the boot order of the mass storage devices within the computer after the configuration change so that the mass storage devices are booted in the order used prior to the configuration change.

14. (Original) The computer system of Claim 13, wherein the BIOS is further operative to store data in the non volatile memory, the data including a unique identifier for each mass storage device and the location of each mass storage device within the rearranged boot order.

15. (Original) The computer system of Claim 14, wherein the BIOS is operative to store the data in the non-volatile memory prior to a boot of the computer system.

16. (Previously Presented) The computer system of Claim 15, wherein the BIOS is further operative to:

identify a previous location in the boot order for each mass storage device in the computer system by locating a unique identifier in the previously stored data matching the mass storage device; and

rearrange the location in the current boot order for each mass storage device so that each device retains the same relative position in the boot order as the previous location.

17. (Previously Presented) A method for maintaining a boot order of one or more mass storage devices within a computer system, the method comprising:

determining prior to attempting an initial program load of the computer system whether a configuration change to the computer system was made since a previous boot of the computer system that would affect the boot order of the mass storage devices within the computer system, wherein the configuration change comprises removal of at least one of the one or more mass storage devices from the computer system; and

in response to determining that a configuration change was made that would affect the boot order:

retrieving a list of the mass storage devices within the computer system prior to the configuration change,

removing an entry for the at least one mass storage device removed from the computer system from the list of the mass storage devices, and

rearranging the boot order of the mass storage devices remaining on the list of the mass storage devices so that the remaining mass storage devices are booted in the order used prior to the configuration change.

18. (Previously Presented) A computer-readable medium having computer-executable instructions stored thereon, said instructions operative to provide the method of Claim 17 when executed by a computer.

19. (Previously Presented) A method for maintaining a boot order that defines the order in which a computer system attempts to perform an initial program load from one or more mass storage devices within the computer, the method comprising:

determining prior to attempting to perform the initial program load whether a configuration change made to the computer system since a previous boot is a manual configuration change to the computer system;

if the configuration change to the computer system is not a manual configuration change, then:

identifying each mass storage device currently in the system that was also installed at the previous boot of the system,

determining the location of each mass storage device currently in the system in a boot order used during the previous boot by utilizing data stored at the previous boot,

arranging a current boot priority for each device currently in the system that was installed at the previous boot so that the mass storage devices currently in the system are in the same order as they were during the previous boot,

identifying each device currently in the system that was not installed at the previous boot based on the data stored at the previous boot, and

assigning a boot priority to each mass storage device currently in the system that was not installed at the previous boot at the end of the boot order; and

if the configuration change to the computer system is a manual configuration change, then maintaining the boot order of the mass storage devices used prior to the configuration change.

20. (Previously Presented) The method of claim 1, wherein determining prior to attempting to perform the initial program load whether a configuration change made to the computer system since a previous boot is a manual configuration change to the computer system comprises determining whether at least a first change bit data field and a second change bit data field indicate that the configuration change is a manual configuration change.

21. (Previously Presented) A computer-readable medium having computer-executable instructions stored thereon, said instructions operative to provide the method of Claim 19 when executed by a computer.